

## **Abstract**

A system and method for scanning for an object within a region using a Low Discrepancy Sequence scanning scheme. The system may comprise a computer which includes a CPU and a memory medium which is operable to store one or more programs executable by the CPU to perform the method. The method may: 1) calculate a Low Discrepancy Sequence of points in the region; 2) generate a motion control trajectory from the Low Discrepancy Sequence of points (e.g., by generating a Traveling Salesman Path (TSP) from the Low Discrepancy Sequence of points and then re-sampling the TSP to produce a sequence of motion control points comprising the motion control trajectory); 3) scan the region along the motion control trajectory to determine one or more characteristics of the object in response to the scan. The method may also generate output indicating the one or more characteristics of the object.

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100-900-151677-A0088801